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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,741	09/19/2003	Kazuko Shinozaki	382.1029DIV1	5801
23280	7590	09/25/2006	EXAMINER	
DAVIDSON, DAVIDSON & KAPPEL, LLC 485 SEVENTH AVENUE, 14TH FLOOR NEW YORK, NY 10018			KRUSE, DAVID H	
			ART UNIT	PAPER NUMBER
			1638	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/664,741

Applicant(s)

SHINOZAKI ET AL.

Examiner

David H. Kruse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/301,217.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)                       |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application             |
| Paper No(s)/Mail Date <u>9/19/2003</u> .   | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> . |

Continuation of Attachment(s) 6). Other: partial sequeunce search results.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102/103***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5-8 are rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent 6,417,428 B1, Thomashow *et al* (filed 23 November 1998)

Thomashow *et al* disclose a method of altering an environmental stress response of a plant by providing a recombinant molecule comprising a polynucleotide that encodes a polypeptide that has the amino acid sequence of Applicants' SEQ ID NO: 6, at claim 19 (SEQ ID NO: 1). Thomashow *et al* disclose a transgenic plant transformed with polynucleotide operably linked to a promoter that is regulated by changes in

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environment conditions at claim 8. Thomashow *et al* discloses SEQ ID NO: 1 that encodes SEQ ID NO: 2, SEQ ID NO: 2 being identical to Applicants' SEQ ID NO: 6.

While SEQ ID NO: 1 of Thomashow *et al* is 94.1% identical to Applicants' SEQ ID NO: 5, it discloses an identical coding region. The differences between SEQ ID NO: 1 of Thomashow *et al* and Applicants' SEQ ID NO: 6 does not appear to lead to a teaching of unexpected results since they are functionally equivalent.

The Examiner has attached a copy of the Office's sequence search results for Applicants' convince.

### ***Conclusion***

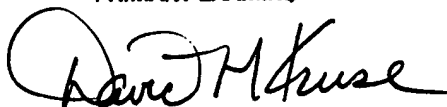
4. No claims are allowed.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (571) 272-0799. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The central FAX number for official correspondence is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-1600.

DAVID H. KRUSE, PH.D.  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "David H. Kruse", written in a cursive style.

David H. Kruse, Ph.D.  
18 September 2006

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6. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

RESULT 7  
 US-09-198-119C-2  
 ; Sequence 2, Application US/09198119C  
 ; Patent No. 6417428  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Thomashow, Michael  
 ; APPLICANT: Stockinger, Eric  
 ; APPLICANT: Jaglo-Ottosen, Kirsten  
 ; APPLICANT: Gilmour, Sarah  
 ; APPLICANT: Zarka, Daniel  
 ; APPLICANT: Jiang, Cai-Zhong  
 ; TITLE OF INVENTION: Plant Having Altered Environmental Stress Tolerance  
 ; FILE REFERENCE: 19117.713 Seq List  
 ; CURRENT APPLICATION NUMBER: US/09/198,119C  
 ; CURRENT FILING DATE: 1998-11-23  
 ; PRIOR APPLICATION NUMBER: US 08/706,270  
 ; PRIOR FILING DATE: 1998-09-04  
 ; PRIOR APPLICATION NUMBER: US 09/018,233  
 ; PRIOR FILING DATE: 1998-02-03  
 ; PRIOR APPLICATION NUMBER: US 09/017,816  
 ; PRIOR FILING DATE: 1998-02-03  
 ; PRIOR APPLICATION NUMBER: US 09/018,235  
 ; PRIOR FILING DATE: 1998-02-03  
 ; PRIOR APPLICATION NUMBER: US 09/017,575  
 ; PRIOR FILING DATE: 1998-02-03  
 ; PRIOR APPLICATION NUMBER: US 09/018,227  
 ; PRIOR FILING DATE: 1998-02-03  
 ; PRIOR APPLICATION NUMBER: US 09/018,234  
 ; PRIOR FILING DATE: 1998-02-03  
 ; NUMBER OF SEQ ID NOS: 95  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 2  
 ; LENGTH: 213  
 ; TYPE: PRT  
 ; ORGANISM: Arabidopsis thaliana  
 ; FEATURE:  
 ; OTHER INFORMATION: CBF1 protein  
 US-09-198-119C-2

Query Match 99.6%; Score 1143; DB 2; Length 213;  
 Best Local Similarity 99.5%; Pred. No. 2.6e-117;  
 Matches 212; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MNSFSAFSEMFGSDYEPQGGDYCPTLATSCPCKKPAGRKKFRETRHPIYRGVQRNSGKWV	60
Db	1	MNSFSAFSEMFGSDYEPQGGDYCPTLATSCPCKKPAGRKKFRETRHPIYRGVQRNSGKWV	60
Qy	61	SEVREPNNKKTRIWLGTFTQTAEMAARAHDAALALGRSACLNFAWSAWRLRIPESTCAKD	120
Db	61	SEVREPNNKKTRIWLGTFTQTAEMAARAHDAALALGRSACLNFAWSAWRLRIPESTCAKD	120
Qy	121	IQKAAAEAAALAFQDETCDTTTTNHGLDMEETMVEAIYTPEQSEGAFFYMDEETMFGMPTLL	180
Db	121	IQKAAAEAAALAFQDETCDTTTTDHGLDMEETMVEAIYTPEQSEGAFFYMDEETMFGMPTLL	180
Qy	181	DNMAEGMLLPPPSVQWNHNYDGECDGVDVSLWSY	213
Db	181	DNMAEGMLLPPPSVQWNHNYDGECDGVDVSLWSY	213

RESULT 7  
 US-09-198-119C-1  
 ; Sequence 1, Application US/09198119C  
 ; Patent No. 6417428  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Thomashow, Michael  
 ; APPLICANT: Stockinger, Eric  
 ; APPLICANT: Jaglo-Ottosen, Kirsten  
 ; APPLICANT: Gilmour, Sarah  
 ; APPLICANT: Zarka, Daniel  
 ; APPLICANT: Jiang, Cai-Zhong  
 ; TITLE OF INVENTION: Plant Having Altered Environmental Stress Tolerance  
 ; FILE REFERENCE: 19117.713 Seq List  
 ; CURRENT APPLICATION NUMBER: US/09/198,119C  
 ; CURRENT FILING DATE: 1998-11-23  
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 ; PRIOR FILING DATE: 1998-02-03  
 ; PRIOR APPLICATION NUMBER: US 09/018,227  
 ; PRIOR FILING DATE: 1998-02-03  
 ; PRIOR APPLICATION NUMBER: US 09/018,234  
 ; PRIOR FILING DATE: 1998-02-03  
 ; NUMBER OF SEQ ID NOS: 95  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 1  
 ; LENGTH: 905  
 ; TYPE: DNA  
 ; ORGANISM: Arabidopsis thaliana  
 ; FEATURE:  
 ; OTHER INFORMATION: CBF1 gene  
 US-09-198-119C-1

Query Match 94.1%; Score 881.4; DB 3; Length 905;  
 Best Local Similarity 99.7%; Pred. No. 1.2e-238;  
 Matches 904; Conservative 0; Mismatches 1; Indels 2; Gaps 2;

Qy	5	AAAAAGAATCTACCTGAAAAGAAAAAAGAGAGAGAGATATAAATAGCTTTACCAAGAC	64
Db	1	AAAAAGAATCTACCTGAAAAGAAAAAAGAGAGAGAGATATAAATAGC-TTACCAAGAC	59
Qy	65	AGATATACTATCTTTTATTAATCCAAAAGACTGAGAACTCTAGTAACTACGTACTACTT	124
Db	60	AGATATACTATCTTTTATTAATCCAAAAGACTGAGAACTCTAGTAACTACGTACTACTT	119
Qy	125	AAACCTTATCCAGTTTCTTGAAACAGAGTACTCTGATCAATGAACTCATTTTCAGCTTTT	184
Db	120	AAACCTTATCCAGTTTCTTGAAACAGAGTACTCTGATCAATGAACTCATTTTCAGCTTTT	179
Qy	185	TCTGAAATGTTTGGCTCCGATTACGAGCCTCAAGGCGGAGATTATTGTCCGACGTTGGCC	244
Db	180	TCTGAAATGTTTGGCTCCGATTACGAGCCTCAAGGCGGAGATTATTGTCCGACGTTGGCC	239
Qy	245	ACGAGTTGTCCGAAGAAACCGGCGGGCCGTAAGAAGTTTCGTGAGACTCGTCACCCAATT	304
Db	240	ACGAGTTGTCCGAAGAAACCGGCGGGCCGTAAGAAGTTTCGTGAGACTCGTCACCCAATT	299
Qy	305	TACAGAGGAGTTCGTCAAAGAAACTCCGGTAAGTGGGTTTCTGAAGTGAGAGAGCCAAAC	364
Db	300	TACAGAGGAGTTCGTCAAAGAAACTCCGGTAAGTGGGTTTCTGAAGTGAGAGAGCCAAAC	359
Qy	365	AAGAAAACCAGGATTTGGCTCGGGACTTTCCAAACCGCTGAGATGGCAGCTCGTGCTCAC	424

Db 360 AAGAAAACCAGGATTTGGCTCGGGACTTTCCAAACCGCTGAGATGGCAGCTCGTGCTCAC 419  
 Qy 425 GACGTCGCTGCATTAGCCCTCCGTGGCCGATCAGCATGTCTCAACTTCGCTGACTCGGCT 484  
 |||||  
 Db 420 GACGTCGCTGCATTAGCCCTCCGTGGCCGATCAGCATGTCTCAACTTCGCTGACTCGGCT 479  
 Qy 485 TGGCGGCTACGAATCCCGGAGTCAACATGCGCCAAGGATATCCAAAAAGCGGCTGCTGAA 544  
 |||||  
 Db 480 TGGCGGCTACGAATCCCGGAGTCAACATGCGCCAAGGATATCCAAAAAGCGGCTGCTGAA 539  
 Qy 545 GCGGCGTTGGCTTTTCAAGATGAGACGTGTGATACGACGACCACGAATCATGGCCTGGAC 604  
 |||||  
 Db 540 GCGGCGTTGGCTTTTCAAGATGAGACGTGTGATACGACGACCACGGATCATGGCCTGGAC 599  
 Qy 605 ATGGAGGAGACGATGGTGGAAGCTATTTATACACCGGAACAGAGCGAAGGTGCGTTTTAT 664  
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 Db 600 ATGGAGGAGACGATGGTGGAAGCTATTTATACACCGGAACAGAGCGAAGGTGCGTTTTAT 659  
 Qy 665 ATGGATGAGGAGACAATGTTTGGGATGCCGACTTTGTTGGATAATATGGCTGAAGGCATG 724  
 |||||  
 Db 660 ATGGATGAGGAGACAATGTTTGGGATGCCGACTTTGTTGGATAATATGGCTGAAGGCATG 719  
 Qy 725 CTTTTACCGCCGCCGTCTGTTCAATGGAATCATAATTATGACGGCGAAGGAGATGGTGAC 784  
 |||||  
 Db 720 CTTTTACCGCCGCCGTCTGTTCAATGGAATCATAATTATGACGGCGAAGGAGATGGTGAC 779  
 Qy 785 GTGTCGCTTTGGAGTTACTAATATTCGATAGTCGTTTCCATTTTTGTACTATAGTTTGAA 844  
 |||||  
 Db 780 GTGTCGCTTTGGAGTTACTAATATTCGATAGTCGTTTCCATTTTTGTACTATAGTTTGAA 839  
 Qy 845 AATATTCTAGTTCCTTTTTTTAGAATGGTTCCTTCATTTTATTTTATTTTATTGTTGTAG 904  
 |||||  
 Db 840 AATATTCTAGTTCCTTTTTTTAGAATGGTTCCTTCATTTTATTTTATTTTATTGTTGTAG 898  
 Qy 905 AAACGAG 911  
 |||||  
 Db 899 AAACGAG 905